Bruhat Bengaluru Mahanagara Palike

BRUHAT BENGALURU MAHANAGARA PALIKE, YELAHANKA
PROJECT DIVISION

Name of Work:- Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town.

QUALITY CONTROL REPORTS

"FIRST & PART BILL"

Name of work: "Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town.".

Quality Control Abstract

Job code: 004-20-000007

Work Order Number: : EE(Project)/YNK Zone/WO/49/2020-21. Dated : 22.07.2020

Bill Number: First & Final Bill

Name of contractor: Sri K Lakshmi Narayana Reddy.

Sl No.	Description of Materials	Test	No of Units Tested	No of samples conducted	Test result	Remarks
	CONCRETE					
1	PCC M10	Compressive Strength (IS 516-1959)	24	24	Satisfactory	-
2	M20 Concrete	Compressive Strength (IS 516-1959)	24	24	Satisfactory	-
3	Fine Aggregates	IS: 383-1970 (Reaffirmed -2002)	1	1	Satisfactory	-
4	Test on Cement	IS: 12269-1987	-	10	Satisfactory	-
5	CC road M30	Compressive Strength (IS 516-1959)	60	72	Satisfactory	-
	PRECAST ITEMS					
5	Concrete Kerb Stones	Core Compressive Strength (IS 516-1959 (Reaffirmed -Sp-24, 1983	One Sample Per batch, 6	6	Satisfactory	-

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Mob : 99457 44759

Shriya Construction and Consultancy

1133, 3rd Floor, 3rd Stage, 'B' Cross, Yelahanka New Town, Bangalore - 560 064.

NO: YEL/PMC/PARK IMP/M10 Date: 04/08/2020

Test report on cement Concrete Cubes:

Sub: Testing of concrete cubes (for below said no of days – Compressive Strength)

Project: Name of work: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

RESULTS OF COMPRESSIVE STRENGHT OF CONCRETE CUBES

CUBE SPECIMENS

Dimentions of Specimens: 150x150x150mm
Grade Of concrete: **M10**

Table1.1

Sl No	Location	Date Of Casting	Date Of Testing	Weight Of Cubes	Age in days	Load (KN)	ssive Strengt h N/mm2	Average Strength N/mm2
1	Shankar Nag Park and Vishwesh waraiah Park Kerb	04.08.2020	11.08.2020	8.41	7	169.00	7.51	8.28
2		"	"	8.27	"	174.00	7.73	
3		"	"	8.32	"	189.00	8.40	
4		"	"	8.07	"	182.00	8.09	
5		"	"	8.36	"	199.00	8.84	
6		"	"	8.61	"	205.00	9.11	

Sri Laxmi Narayana Reddy
Shriya Construction

SHRIYA CONSTRUCTION AND CONSULTANCY

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

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NO: YEL/PMC/PARK IMP/M10 Date: 01/09/2020

Test report on cement Concrete Cubes:

Sub: Testing of concrete cubes (for below said no of days – Compressive Strength)

Project: Name of work: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

RESULTS OF COMPRESSIVE STRENGHT OF CONCRETE CUBES

CUBE SPECIMENS

Dimentions of Specimens: 150x150x150mm
Grade Of concrete: **M10**
Table1.1

Sl No	Location	Date Of Casting	Date Of Testing	Weight Of Cubes	Age in days	Load (KN)	ssive Strength N/mm2	Average Strength N/mm2
1	Shankar Nag Park and Vishwesh waraiah Park Kerb	04.08.2020	01.09.2020	8.20	28	300.00	13.33	12.89
2		"	"	8.23	"	305.00	13.56	
3		"	"	8.36	"	295.00	13.11	
4		"	"	8.51	"	275.00	12.22	
5		"	"	8.00	"	289.00	12.84	
6		"	"	8.34	"	276.00	12.27	

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NO: YEL/PMC/PARK IMP/M10 Date: 10/10/2020

Test report on cement Concrete Cubes:

Sub: Testing of concrete cubes (for below said no of days – Compressive Strength)

Project: Name of work: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

RESULTS OF COMPRESSIVE STRENGHT OF CONCRETE CUBES

CUBE SPECIMENS

Dimentions of Specimens: 150x150x150mm
Grade Of concrete: M10
Table1.1

Sl No	Location	Date Of Casting	Date Of Testing	Weight Of Cubes	Age in days	Load (KN)	ssive Strengt h N/mm2	Average Strength N/mm2
1	Vinayaka Park and Basavanna Park Kerb	03.10.2020	10.10.20.20	8.23	7	180.00	8.00	7.96
2		"	"	8.21	"	165.00	7.33	
3		"	"	8.62	"	172.00	7.64	
4		"	"	8.42	"	186.00	8.27	
5		"	"	8.75	"	176.00	7.82	
6		"	"	8.20	"	195.00	8.67	

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NO: YEL/PMC/PARK IMP/M10 **Date: 31/10/2020**

Test report on cement Concrete Cubes:

Sub: Testing of concrete cubes (for below said no of days – Compressive Strength)

Project: Name of work: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

RESULTS OF COMPRESSIVE STRENGHT OF CONCRETE CUBES

CUBE SPECIMENS

Dimentions of Specimens: 150x150x150mm
Grade Of concrete: **M10**

Table1.1

Sl No	Location	Date Of Casting	Date Of Testing	Weight Of Cubes	Age in days	Load (KN)	ssive Strength N/mm2	Average Strength N/mm2
1	Vinayaka Park and Basavanna Park Kerb	03.10.2020	31.10.2020	8.41	28	245.00	10.89	11.05
2		"	"	8.39	"	232.00	10.31	
3		"	"	8.50	"	263.00	11.69	
4		"	"	8.49	"	241.00	10.71	
5		"	"	8.48	"	253.00	11.24	
6		"	"	8.21	"	258.00	11.47	

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NO: YEL/PMC/PARK IMP/M20 01 Date: 13/08/2020

1. Test report on cement Concrete Cubes:

Sub: Testing of concrete cubes (for below said no of days – Compressive Strength)

Project: Name of work: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

RESULTS OF COMPRESSIVE STRENGHT OF CONCRETE CUBES

CUBE SPECIMENS

Dimentions of Specimens: 150x150x150mm
Grade Of concrete: **M20**

Table 1.1

SL No	Location	Date of casting	Date of Testing	C/S Area mm2	Age	Load KN	Compressive Strength-N/mm2	Average
1.	Childern and Gym Equipments	06/08/2020	13/08/2020	22500	7	390	17.33	18.15
2.		"	"	"	"	425	18.88	
3.		"	"	"	"	410	18.22	
4.		"	"	"	"	426	18.90	
5.		"	"	"	"	400	18.04	
6.		"	"	"	"	395	17.55	

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NO: YEL/PMC/PARK IMP/M20 02 **Date: 03/09/2020**

1. **Test report on cement Concrete Cubes:**

Sub: Testing of concrete cubes (for below said no of days – Compressive Strength)

Project: Name of work: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

RESULTS OF COMPRESSIVE STRENGHT OF CONCRETE CUBES

CUBE SPECIMENS

Dimentions of Specimens: 150x150x150mm
Grade Of concrete: **M20**

Table 1.1

SL No	Location	Date of casting	Date of Testing	C/S Area mm2	Age	Load KN	Compressive Strength-N/mm2	Average
1.	Childern and Gym Equipments	06/08/2020	03/09/2020	22500	28	510	22.66	22.51
2.		"	"	"	"	545	24.22	
3.		"	"	"	"	490	21.77	
4.		"	"	"	"	505	22.40	
5.		"	"	"	"	531	23.60	
6.		"	"	"	"	482	21.40	

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NO: YEL/PMC/PARK IMP/M20 03 **Date: 14/08/2020**

2. Test report on cement Concrete Cubes:

Sub: Testing of concrete cubes (for below said no of days – Compressive Strength)

Project: Name of work: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

RESULTS OF COMPRESSIVE STRENGHT OF CONCRETE CUBES

CUBE SPECIMENS

Dimentions of Specimens: 150x150x150mm
Grade Of concrete: **M20**

Table 1.1

SL No	Location	Date of casting	Date of Testing	C/S Area mm2	Age	Load KN	Compressive Strength-N/mm2	Average
1.	Childern and Gym Equipments	07/08/2020	14/08/2020	22500	7	399	17.73	18.62
2.		"	"	"	"	418	18.57	
3.		"	"	"	"	427	18.97	
4.		"	"	"	"	461	20.48	
5.		"	"	"	"	410	18.22	
6.		"	"	"	"	400	17.77	

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NO: YEL/PMC/PARK IMP/M20 02/4 Date: 04/09/2020

2. Test report on cement Concrete Cubes:

Sub: Testing of concrete cubes (for below said no of days – Compressive Strength)

Project: Name of work: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

RESULTS OF COMPRESSIVE STRENGHT OF CONCRETE CUBES

CUBE SPECIMENS

Dimentions of Specimens: 150x150x150mm
Grade Of concrete: **M20**

Table 1.1

SL No	Location	Date of casting	Date of Testing	C/S Area mm2	Age	Load KN	Compressive Strength-N/mm2	Average
1.	Childern and Gym Equipments	07/08/2020	04/09/2020	22500	28	518	23.02	23.71
2.		"	"	"	"	532	23.6	
3.		"	"	"	"	541	24.04	
4.		"	"	"	"	529	23.51	
5.		"	"	"	"	535	23.77	
6.		"	"	"	"	548	24.30	

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TEL/PMC/PARK IMP/KERB 01 **Date: 02/11/2020**

KerbStone (Core Cutting Method) Test Report

Sub: Testing of concrete Kerb Stones (Core Cutting Method) – Compressive Strength)

: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

RESULTS OF COMPRESSIVE STRENGHT OF CONCRETE CORE

CORE SPECIMENS

Grade Of concrete: **M15**
Technical Ref:. IS.516-1959 (Reaffirmed), Sp 24-1983.

Table 1.1
Dia of Specimens: 50 mm =D

SL No	Height of core (H)mm	Weight of Core (KG)	Dencity of core (KG/m3)	H/D	Correction factor of H/D	Load KN	Compressive Strength - N/mm2	Correction Factor for dia (Strength x1.08)	Corrected Compressive Strength	Equavent Cube Compressive Strength
1.	78	.354	2311.4	1.56	.960	26.3	13.39	14.47	13.39	17.36
2.	80	.368	2342.7	1.60	.960	26.3	13.39	14.47	13.39	17.36
3.	82	.382	2372.5	1.64	.960	25.10	12.78	13.81	13.25	16.57

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YEL/PMC/PARK IMP/KERB 01

Date: 16/10/2020

KerbStone (Core Cutting Method) Test Report

Sub: Testing of concrete Kerb Stones (Core Cutting Method) - Compressive Strength)

: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

RESULTS OF COMPRESSIVE STRENGHT OF CONCRETE CORE

CORE SPECIMENS

Grade Of concrete: **M15**
Technical Ref:. IS.516-1959 (Reaffirmed), Sp 24-1983.

Table 1.1

Dia of Specimens: 50 mm =D

SL No	Height of core (H)mm	Weight of Core (KG)	Dencity of core (KG/m3)	H/D	Correction factor of H/D	Load KN	Compressive Strength - N/mm2	Correction Factor for dia (Strength x1.08)	Corrected Compressive Strength	Equavent Cube Compressive Strength
1.	78	.354	2311.4	1.56	.960	26.3	13.39	14.47	13.39	17.36
2.	80	.368	2342.7	1.60	.960	26.3	13.39	14.47	13.39	17.36
3.	82	.382	2372.5	1.64	.960	25.10	12.78	13.81	13.25	16.57

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RC: YEL/PMC/PARK IMP/Sand 01 Date: 10/10/2020

1. Test report on Fine Aggregares:

Sub: Testing of Fine Aggregates Sample Pertaining to IS: 383-1970 (Reaffirmed 2002).

Project: Name of work: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

SIEVE ANALYSIS

Table 1.1

IS Sieve Size, mm	% Passing	IS: 383-1970 (Reaffirmed 2002). Percentage Passing			Result/ Remarks
		Zone I	Zone II	Zone III	
4.75mm	95.35	90-100	90-100	90-100	The Sample Conforms Grade II
2.36mm	82.65	60-95	75-100	85-100	
1.18 mm	86.25	30-70	55-90	75-100	
600 micr.	48.90	15.34	35-59	60-79	
300 mic.	23.40	5-20	8-30	12-40	
150 mic.	8.10	0-10	0-10	0-10	

SL No	Name of Tests	Sample	Result	Requirements as per IS: 383-1970 (Reaffirmed 2002).
1.	Bulking Of Sand	01	17.84%	NA
2.	Silt Content	-	.59%	Not more than 8%
3.	Specific Gravity	-	2.61	--

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Ref: YEL/PMC/PARK IMP/CEM 01 Date: 10/10/2020

1. **Test report on Cement:**

Sub: Testing of 53 Grade Cement Sample Pertaining to IS: 12269-1987

Project: Name of work: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

PHYSICAL TESTS ON CEMENT

Grade Of Cement: 53, OPC

Table 1.1

SL No	Name of Tests	Result	As Per IS Requirements (IS 8112-1989)
1.	Initial Setting Time	160 Min	Shall Not be less than 30 Min
2.	Final Setting Time	270 Min	Shall Not be More than 600 Min
3.	Fineness (by dry sieve on IS 90 micron Seieve)	1.96 %	Not to Exceed 10.0 %
4.	Soundness Test by Lee-Chatelier's Method	2.13 mm	Shall not be more than 10 mm
5.	Compressive strength (3 days on average of 3 results	28.56 N/Sqmm	Shall not be less than 27 N /Sq mm

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Ref: YEL/PMC/PARK IMP/CEM 02 Date: 06/11/2020

1. Test report on Cement:

Sub: Testing of 53 Grade Cement Sample Pertaining to IS: 12269-1987

Project: Name of work: **"Improvements of parks and providing children play equipment's and pathway in Kempegowda park, Basavalingapa park, Basavanna Park, Rajiv Gandhi Park and surrounding areas park in ward No-4 Yelahanka New Town".**

Ref: Material Testing/PMC/20-21.

Report submitted to: Assistant Executive Engineer, Yelahanka Projects Division, BBMP Bangalore.

Name of Agency/ contractor: Sri K Lakshmi Narayana Reddy.

PHYSICAL TESTS ON CEMENT

Grade Of Cement: 53, OPC

Table 1.1

SL No	Name of Tests	Result	As Per IS Requirements (IS 8112-1989)
1.	Initial Setting Time	168 Min	Shall Not be less than 30 Min
2.	Final Setting Time	275 Min	Shall Not be More than 600 Min
3.	Fineness (by dry sieve on IS 90 micron Seieve)	1.98 %	Not to Exceed 10.0 %
4.	Soundness Test by Lee-Chatelier's Method	2.15 mm	Shall not be more than 10 mm
5.	Compressive strength (3 days on average of 3 results	29.56 N/Sqmm	Shall not be less than 27 N /Sq mm

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